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NON-VOLANT SMALL MAMMALS' DIVERSITY AND COMPOSITION AT MANGROVE AREA OF UNIVERSITY MALAYSIA TERENGGANU (UMT)

By

Nurul Farhanah Binti Mohd Nasir

A thesis submitted in partial fulfillment of
The requirements for the award if the degree of
Bachelor of Applied Science (Biodiversity Conservation and Management)

DEPARTMENT OF BIOLOGICAL SCIENCES
FACULTY OF SCIENCE AND TECHNOLOGY
UNIVERSITY MALAYSIA TERENGGANU
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JABATAN SAINS BIOLOGI
FAKULTI SAINS DAN TEKNOLOGI
UNIVERSITI MALAYSIA TERENGGANU

PENGAKUAN DAN PENGESAHAN LAPORAN PITA I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: NON-VOLANT SMALL MAMMALS' DIVERSITY AND COMPOSITION AT MANGROVE AREA OF UNIVERSITY MALAYSIA TERENGGANU (UMT) oleh NURUL FARHANAH BINTI MOHD NASIR, No matrik : UK 12415 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah SARJANA MUDA SAINS GUNAAN (PEMULIHARAAN DAN PENGURUSAN BIODIVERSITI), Fakulti Sains dan Teknologi, UMT.

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DECLARATION

I hereby declare that thesis entitled NON-VOLANT SMALL MAMMALS' DIVERSITY AND COMPOSITION AT MANGROVE AREA OF UNIVERSITY MALAYSIA TERENGGANU (UMT) is the result of my own research except as cited in the references.

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ABSTRACT

The study of non-volant small mammal was carried out at mangrove area of Universiti Malaysia Terengganu (UMT). The objectives of this study were to determine the diversity and composition of non-volant small mammal and to update the checklist of non-volant small mammal at the area. This study was conducted from August 2007 to January 2008. 30 traps were deployed in five lines of six traps along 30m transect with 5m intervals between traps. A total of 20 individuals from 3 species and 2 families were caught throughout this study. Two species caught were belongs to the Family Muridae and a species belongs to the Family Viverridae. From the 20 individuals captured, 19 individuals or 95% belongs to Family Muridae and one or 5% were from the Family Viverridae. The species caught were *Rattus tiomanicus, Rattus rattus* and *Paradoxurus hermaphroditus*. From the total capture, *Rattus tiomanicus* is the most dominant species in mangrove area representing 95% of total individual followed by *Rattus rattus* and *Paradoxurus hermaphroditus* with 2.5% respectively. Ecological factors such weather and flood, and also human activities at the mangrove area were among the factors that known to influence the diversity and composition of non-volant small mammals. From this study also, one additional species which is *Rattus rattus* were recorded present at mangrove area of Universiti Malaysia Terengganu.

KEPELBAGAIAN DAN KOMPOSISI MAMALIA KECIL TIDAK TERBANG (NON-VOLAN) DI KAWASAN BAKAU UNIVERSITI MALAYSIA TERENGGANU

ABSTRAK

Kajian mamalia kecil tidak terbang telah dijalankan di kawasan bakau di Universiti Malaysia Terengganu (UMT). Objektif kajian ini adalah untuk mengenal pasti kepelbagaian dan komposisi mamalia kecil tidak terbang serta menambah senarai mamalia kecil di kawasan bakau UMT. Kajian ini telah dijalankan dari bulan Ogos 2007 hingga Januari 2008. Satu transek sepanjang 30m disediakan. Perangkap diletakkan 5m antara setiap satu di sepanjang transek tersebut. Sejumlah 20 individu daripada 3 spesies telah diperolehi. 2 spesies yang diperolehi terdiri daripada Famili Muridae dan 1 lagi spesies terdiri daripada Famili Viverridae. Daripada 20 individu tangkapan, 19 individu atau 95% terdiri daripada Famili Muridae dan 5% atau satu individu daripada Famili Viverridae. Spesies yang ditangkap ialah *Rattus tiomanicus* (95%), *Rattus rattus* (2.5%) dan *Paradoxurus hermaphroditus* (2.5%). Spesies yang dominan di kawasan bakau ini adalah *Rattus tiomanicus*. Faktor ekologi seperti cuaca dan banjir, di samping aktiviti manusia di kawasan bakau diantara faktor yang mempengaruhi kepelbagaian dan komposisi mamalia kecil tidak terbang. Daripada kajian ini, satu spesies telah berjaya direkodkan di kawasan bakau UMT iaitu *Rattus rattus*.